

CLAIMS:

1. A machine executed method of processing files, the method comprising
 - providing a plurality of original files;
 - providing one or more common files, that contain information that several of the original files refer to;
- 5 - preprocessing the original files each to generate a respective preprocessed file, said preprocessing comprising expanding the several of the original files with the information from a first one of the common files;
 - applying a collective processing step to make coordinated changes to information from the preprocessed files;
- 10 - selecting one of the preprocessed files, on the basis of detection that the selected file elaborates the information from the first one of the common files, and
 - regenerating regenerated files for the original files and the first one of the common files as affected by the collective processing step, said regenerating of the regenerated file for the first one of the common files being controlled using information from the selected preprocessed file, so that information in the selected preprocessed file controls how much will be included in the regenerated file for the first one of the common files.
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- 20 2. A machine executed method of processing files according to Claim 1, comprising first separate processing of the regenerated files for the original files using information from the regenerated file for the first one of the common files followed by linking of a program of machine instructions by linking information derived from the regenerated files for the original files.
- 25 3. A machine executed method of processing files according to Claim 2, comprising selectively regenerating regenerated files only for those original files and common files that are affected by said collective processing and using unaffected original files and common files in said separated processing.

4. A machine executed method of processing files according to Claim 1, wherein the information that the several of the original files refer to is a definition of a structure of a software component, the selected file elaborating the information by providing an implementing program for an element of the software component.

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5. A machine executed method of processing files according to Claim 1, comprising the steps of

- first reading the preprocessed files to perform said selecting;
- second reading the preprocessed files, wherein of expanded information of the first one of the common files only expanded information from the selected preprocessed file is retained in a computer memory for use during application of collective processing.

6. A machine executed method of processing files according to Claim 5, wherein said selecting comprises

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- detecting implementations of software components in the preprocessed files;
 - selecting a particular preprocessed file for retaining information from the first common file in the memory, if that particular preprocessed file contains an implementation of a software component

20 7. A machine executed method of processing files according to Claim 6, wherein an order of reading the preprocessed files during said second reading is preselected upon said first reading, a position of a particular preprocessed file in said order being selected so that, if that particular preprocessed file contains an implementation of a software component that refers to one or more further software components, the particular preprocessed file is positioned in said order for reading after a preprocessed file or files that contain implementations of all of the one or more further software component.

25 8. A machine executed method of processing files according to Claim 7, comprising generating dummy files, each for a respective software component for which no 30 implementing preprocessed file was found and reading the dummy file as part of said second reading, said generating the dummy files comprising inserting in each particular dummy file an instruction to include the common file that defines the software component for which the dummy file is generated and preprocessing the dummy files, or, instead of said inserting and preprocessing, inserting an expansion of the common file in the dummy file.

9. A machine executed method of processing files according to Claim 1, said preprocessing comprising

- including marking information in the preprocessed files to identify the first one of the common files from which information has been expanded into the preprocessed files and the information that has been expanded,

- said regenerating comprising using the marking information to insert instructions instead of the expanded information in the regenerated files for the original files, the instructions commanding inclusion of the regenerated file for the first one of the common files where the first one of the common files was expanded into the preprocessed files,

- the regenerated file for the first one of the common files being regenerated from expanded information marked by the marking information in the selected preprocessed file.

15 10. A machine executed method of processing files according to Claim 9, wherein the information that the several of the original files refer to is a definition of a structure of a software component, the selected file elaborating the information by providing an implementing program for an element of the software component, the method comprising

- detecting for each preprocessed file whether that one of the original files from which the selected preprocessed file was generated contained, preceding a first instruction for expanding the information from the first one of the common files, a preceding instruction for expanding information from a further common file, and

- generating an equivalent copy of the preceding instruction in each regenerated file where an instruction for expanding the first one of the common files is inserted, the equivalent copy being inserted preceding the instruction for expanding the first one of the common files.

11. A computer program product containing machine instructions for executing the method according to any one of the preceding Claims.

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12. A machine programmed for processing files, the machine comprising a storage system for storing a plurality of original files and one or more common files that contain information that several of the original files refer to and a processing system programmed to

- preprocess the original files each to generate a respective preprocessed file, said preprocessing comprising expanding the several of the original files with the information from a first one of the common files;
- apply a collective processing step to make coordinated changes to information from the preprocessed files;
- select one of the preprocessed files, on the basis of detection that the selected file elaborates the information from the first one of the common files, and
- regenerate regenerated files for the original files and the first one of the common files as affected by the collective processing step, said regenerating of the regenerated file for the first one of the common files being controlled using information from the selected preprocessed file, so that information in the selected preprocessed file controls how much will be included in the regenerated file for the first one of the common files.

13. A machine according to Claim 12, comprising a memory for storing information from the preprocessed files for applying the collective processing step, the machine being arranged to

- first read the preprocessed files to perform said selecting;
- subsequently read the preprocessed files for the collective processing step, wherein of expanded information of the first one of the common files only expanded information from the selected preprocessed file is retained in the memory for use during application of collective processing.

14. A machine according to Claim 13, wherein said selecting comprises detecting implementations of software components in the preprocessed files;

25 - selecting a particular preprocessed file for retaining information from the first common file in the memory, if that particular preprocessed file contains an implementation of a software component.

15. A machine according to Claim 14, wherein an order of reading the preprocessed files during said second reading is preselected upon said first reading, a position of a particular preprocessed file in said order being selected so that, if that particular preprocessed file contains an implementation of a software component that refers to one or more further software components, the particular preprocessed file is positioned in said order

for reading after a preprocessed file or files that contain implementations of all of the one or more further software component.

16. A machine according to Claim 12, wherein preprocessing comprises
- 5 - including marking information in the preprocessed files to identify the first one of the common files from which information has been expanded into the preprocessed files and the information that has been expanded,
- said regenerating comprising using the marking information to insert instructions instead of the expanded information in the regenerated files for the original files,
- 10 the instructions commanding inclusion of the regenerated file for the first one of the common files where the first one of the common files was expanded into the preprocessed files,
- the regenerated file for the first one of the common files being regenerated from expanded information marked by the marking information in the selected preprocessed file.
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17. A machine according to Claim 16, wherein the information that the several of the original files refer to is a definition of a structure of a software component, the selected file elaborating the information by providing an implementing program for an element of the software component, the processing system being arranged to
- 20 - detect for each preprocessed file whether that one of the original files from which the selected preprocessed file was generated contained, preceding a first instruction for expanding the information from the first one of the common files, a preceding instruction for expanding information from a further common file, and
- generate an equivalent copy of the preceding instruction in each regenerated
- 25 file where an instruction for expanding the first one of the common files is inserted, the equivalent copy being inserted preceding the instruction for expanding the first one of the common files.